

## ABSTRACT OF THE DISCLOSURE

A novel method for determining interaction between VH fragment and VL fragment of the variable region of an antibody is provided by the present invention. The method according to this invention can be widely used for detection of protein interactions. If a phagemid vector containing an amber codon is used for transformation of an amber suppressor strain of E.coli according to the method of the invention to produce phages, both of the VH fragment and the VL fragment will be displayed on the phage particles. In contrast, if the same vector is used to transformation of an amber non-suppressing strain of E.coli to produce phages, for the presence of the amber codon, only the VH fragment will be displayed on the phage particles, while the VL fragment will be secreted into the culture medium by the E.coli. Thus, display switch occurs. The interaction between the VH fragment and the VL fragment can be determined, by immobilizing the VL fragment secreted into the culture medium on a solid phase and quantifying binding between the VH fragment displayed by phages and the VL fragment.